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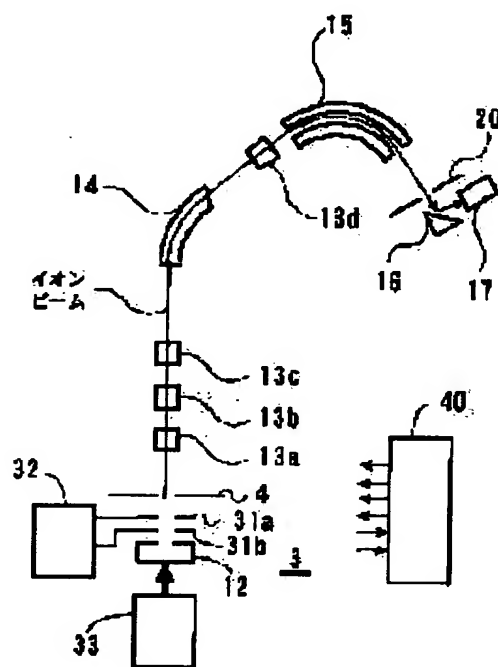
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(54) ISOTOPOMER MASS SPECTROMETER

(57)Abstract:

PROBLEM TO BE SOLVED: To measure an isotopomer precisely and simply by changing the acceleration voltage according to the ion mass of a detection object.

SOLUTION: Electrostatic four-pole lenses 13a-13d, a magnetic field coil 14 and an electric field electrode 15 arranged on an ion beam passage are excited by the voltage that an ion detector 17 can detect ions most efficiently when the ions of a standard sample are emitted from a slit 4 by the prescribed acceleration voltage. When molecules with largely different molecular weights are to be measured, an overall control device 40 forms the optimum system configuration for measurement objects then makes the mass analysis of the isotopomer for the molecules. The subject of system reconfiguration is the voltage change of the magnetic field coil 14 and the electric field electrode 15 and the change of the acceleration voltage in an ion source chamber 3. When the system configuration is optimized for the molecules of analysis objects, the difference in the mass of molecules is no problem. The ion acceleration voltage is acceleration-controlled by the voltage corresponding to the expected isotopomer and is simply measured.



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